

An Education-based Approach to Promote Population Health and Patient Awareness

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Background. Effective collaboration between different professional-cultural groups is increasingly being recognized as a critical component of the movement to achieve consistent quality in patient care, institutional performance and policy planning. This is now especially important as new information systems are making data and good quality evidence increasingly more available. In this paper, we employ informatics tools under development in an attempt to develop educational material to support optimized collaborative decision making between different health cross-professional and cross-cultural groups. In a long term research program, which has just been initiated, the attempt is to research effective decision making and study the interactions between individuals who have different educational and cultural backgrounds. Here, we describe one specific health cross-professional relationship: the doctor-patient interface. Based on our experience with investigating informatics tools that enable simulation of different scenarios, we intend to develop, as output, a set of educational and training modules as well as Internet-based teaching material which can be evaluated and applied to overcome the presence of doctor-patient professional-cultural impediments to effective communication and decision making.

The Patient-Doctor Relationship. In the past, researchers have focused on the general patient perspective - i.e., the needs of the patient; the changes in healthcare that are long overdue; the inpatient versus home care debate. However, very little research has concentrated on the patient perspective - especially regarding their personal health care management information needs.

What information do the patients, as stakeholders, want? Unfortunately, the patients have not been able to get their voice heard. This is, in part, due to a lack of organization. More importantly, there has been a lack of communication between the other health stakeholders and the patients regarding the need for the patients to contribute their information needs into the developmental process. One anticipated outcome of our research project is, that by creating informatics

tools to examine the barriers in semantic transfer of information, we can observe the roadblocks that might cause the deviation from attainable improved and informed patient-doctor decision making.

Informatics. One informatics tool, currently being used in test situations, will be employed in this project. HISE (Healthcare Information Simulation Exercise), developed at the University of Toronto, is an interactive computer based teaching tool consisting of a simulation exercise.

Here, we use education methodologies to study the patient-doctor interface and to develop future tools that could be used to improve decision making. We hope that an awareness of issues and emphasizing both the problems and the methodology to produce improvement on these problems can become influential within the health care system. Education and training support could be the key to the dismantling these communication barriers.

The informatics tool described above is critical in promoting the use of information by groups. The HISE tool enables simulations and following of the consequences of different decisions. Patients and physicians will then be tested on critical decisions that pertain to both individual and population health care issues. During the course of the simulation, the users can access a variety of information sources. In addition, they can request more detailed information support. Studying the information used, the further information required, as well as the decisions made, will assist in determining the mental models used by both groups. This will then assist in modifying and improving the support informatics.

In the end, it is envisioned that a sequence of decision making will be observed for a certain number of scenarios. It is further expected that these responses and reactions to scenarios can be used as a means of elucidating the changes in decision making that might have been brought about by exposure to peers and to the members from the other group (i.e., through education and training).